

**WAVELENGTH DIVISION MULTIPLEXED (WDM)
RING PASSIVE OPTICAL NETWORK (PON) WITH ROUTE
PROTECTION FOR REPLACEMENT OF SPLITTER BASED
PASSIVE OPTICAL NETWORKS**

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ABSTRACT OF THE DISCLOSURE

10 A method and apparatus for low cost upgrading on demand of an optical fiber communication system without installing additional optical fiber and minimal installation of optical circuitry at destination and distribution terminals. The upgraded systems comprise an optical data loop of a plurality of destination terminals and a single intermediate terminal.